## **User Maintenance**

Isolate the unit at the mains supply before commencing any maintenance work.

The unit should always be used with a filter.

In order to maintain efficiency it is important that the filter behind the air intake grille is cleaned regularly:

- \* Remove the filter(s) from behind the air intake grille
- \* Wash the filter (in tepid water only) and shake dry before use
- \* Alternatively tap filter gently to remove dust or vacuum clean.
- \* Pressing  $\blacktriangle/ \nabla$  and  $\widehat{\widehat{z}}$  together resets the "clean the filter" warning signal.

## NOTES:

• During standby the  $\underline{\Phi}$  LED will flash at 0.5 second intervals as a reminder that the unit has power but is not running.

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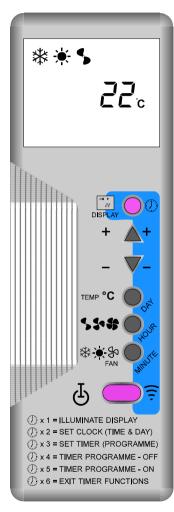
• To clean the unit use a non-scratch liquid cleaner.

#### TEV Ltd Armytage Road, Brighouse, West Yorkshire. HD6 1QF. Tel: (0) 1484 405600 Fax: (0) 1484 405620 Email: sales@marstair.com

# marstair

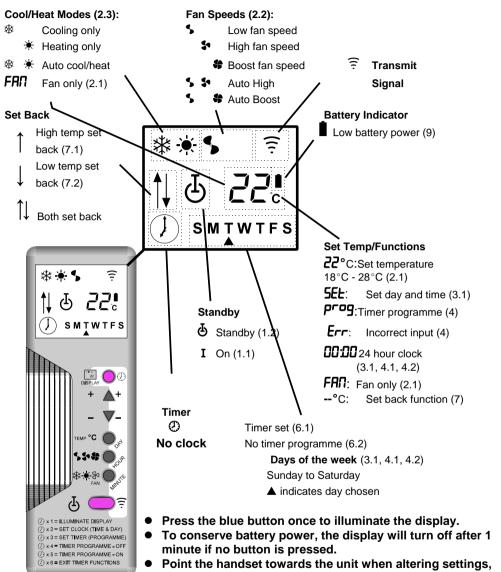
## REMOTE CONTROL HANDSET INSTRUCTIONS

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	2.2 Changing the fan speed.
	2.3 Changing the Cool/Heat/
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	9 Low battery warning.
	10 LED Status and Alarm
	Indicators.
8	User Maintenance.



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## **Remote Control Handset Features**



unless the handset is wire connected.

• A single beep means a signal has been accepted.

## 8. Clear 'CLEAN THE FILTER' warning

Every 2000 hours running the unit will indicate that the filter requires cleaning. This is based on a normal office environment (some installations will require more frequent filter cleaning). To clear the 'clean the filter' warning, press both the + and – ( $\blacktriangle$  and  $\blacktriangledown$ ) buttons together with the orange button, (O).

## 9. Low battery power warning

Low handset battery power is indicated by the battery symbol



#### NOTES:

- When required, replace the battery with an equivalent alkaline type ensuring that the connector is firmly in position.
- Do NOT use a rechargeable battery.

## **10. LED Status and Alarm Indicators**

Electronic indoor units have coloured LED's and a sounder to indicate the following status and alarm functions.

LED			Flash Rate	Sounder	Condition	Status
Red	Amber	Green	ON/OFF (seconds)			
Φ			ON	OFF	In Operation	Normal
	*		ON	OFF	Heating Demand	Normal
		*	ON	OFF	Cooling Demand	Normal
Φ			0.5 / 5.0	OFF	Standby	Normal
Φ			0.5 / 15	OFF	Clock Controlled Standby	Normal
Φ			2 x 0.5 / 15	OFF	Setback	Normal
Φ			0.5 / 0.5	OFF	Filter Clean Advisable	Normal

	×		0.5 / 0.5	BEEPS	Network Warning	Call Engineer
		發	0.5 / 0.5	BEEPS	High Condensate Level	Call Engineer
Φ	☀		0.5 / 0.5	BEEPS	Low Pressure Warning	Call Engineer
Φ		桊	0.5 / 0.5	BEEPS	High Pressure Warning	Call Engineer
Φ	☀	桊	0.5 / 0.5	BEEPS	Contactor Overload Operated	Call Engineer
	*	桊	0.5 / 0.5	BEEPS	Outdoor Fan Fail	Call Engineer
Φ	۲	袋	ON	BEEPS	Sensor Fault	Call Engineer

• To avoid unnecessary annoyance, the sounder will stop after 30 seconds and will sound again fr 30 seconds if any signal is transmitted to the unit, including start up.

• If the sounder beeps in this way call the Engineer.

#### Set Back Function 7

During a programmed switch OFF period it is possible to have the unit automatically heat (if electric heating is fitted or it is a heat pump unit) if the temperature falls below a preset LOW limit, or cool if it rises above a preset HIGH limit.

#### NOTES:

- If either set back temperature is set to anything other than -- °C. the indoor unit's fan will run at low speed during the switched OFF period in order to circulate air over the sensor.
- The set back function will apply to all 7 days of the week, even if the unit does not normally run, say at weekends.
- Active set back is indicated by a double flash of the red LED on the unit. repeated at 15 second intervals.

#### 7.1 To set or change the Set Back LOW temperature limit:

Illuminate the display (blue button). а

Whilst holding down the MINUTE button, press the Blue (O) button, then h release both buttons - the screen will display -- °C. (If a set back temperature

has already been set, this temperature and a down arrow  $\downarrow$  will be displayed).

If no temperature has been set, press the + ( $\blacktriangle$ ) button first, then the + or -С ( $\blacktriangle$  or  $\mathbf{\nabla}$ ) buttons to select the minimum temperature to which the room

should fall before the unit switches on in heating mode. (Temperature range from 5°C to 1° below the setpoint temperature).

Transmit using the orange  $\widehat{\widehat{z}}$  button. A single beep means the signal has d.

## accepted.

#### NOTES:

• The up and down | arrows will be added to the basic display, to indicate that set back has been programmed.

- Setting the set back LOW function only will default the setback HIGH function to 30°C
- Pressing the (▼) button at 5°C will display --°C and remove both the LOW and HIGH set back functions.

#### 7.2 To set or change the Set Back HIGH temperature limit:

Illuminate the display (blue button). a.

b. Whilst holding down the HOUR button, press the Blue (O) button, then release both buttons - the screen will display -- °C. (If a set back temperature has already been set, this temperature and an up arrow will be displayed).

c. If no temperature has been set, press the  $-(\mathbf{\nabla})$  button first, then the + or - (▲ or ▼) buttons to select the maximum temperature to which the room

should rise before the unit switches on in cooling mode.

(Temperature range from 30°C to 1° above the setpoint temperature).

d. Transmit using the orange  $\widehat{\mathfrak{T}}$  button. A single beep means the signal has been accepted.

### NOTES:

• The up and down U arrows will be added to the basic display, to indicate that set back has been programmed.

• Setting the set back HIGH function only will default the set back LOW function to 5°C

• Pressing the + (**A**) button at 30°C will display -- °C and remove both the HIGH and LOW set back functions.

## 1 On / Standby

## 1.1 Starting the unit:

Press the blue button once to illuminate the display. Press the orange button  $(\Phi)$  to switch the unit between 'standby'. (red LED on the unit flashing at 5 second intervals), and 'on', (red LED on the unit permanently on),

### 1.2 Stopping the unit:

Press the blue button once to illuminate the display. Press the orange button  $(\Phi)$  to switch the unit between 'on'. (red LED on the unit permanently on). and 'standby'. (red LED on the unit flashing at 5 second intervals).

## 2 Basic Functions

#### 2.1 To change the temperature setting (18°C to 28°C):

- Illuminate the display (blue button). a.
- Press TEMP °C button the temperature digits will pulse. b.

Press the + or – ( $\blacktriangle$  or  $\nabla$ ) button, whilst pointing the handset towards the С unit. (unless the handset is wire connected). Each press of the + or – ( $\blacktriangle/\nabla$ ) button will increase/decrease the temperature setting by 1°C and transmit the new setting to the unit. A single beep means the signal has been accepted.

#### NOTES

• Temperature settings cannot be changed if FRII is displayed; pressing the **TEMP** °C button in this state will cause the word FBU to pulse (see 2.3).

#### 2.2 To change the fan speed:

- a. Illuminate the display (blue button).
- Press 555 (fan speed) button the fan symbol will pulse. b.
- Press the + or  $-(\blacktriangle \text{ or } \nabla)$  button to select the 5 fan speeds
- the unit. (unless the handset is wire connected). Each press of the + or - $(\blacktriangle/\nabla)$  button will increase/decrease the fan speed by 1 step and transmit
- the new setting to the unit. A single beep means the signal has been

### accepted.

#### NOTES:

• In auto high and auto boost modes, the fan runs at low speed unless the room temperature is (2° or 3°) different from the set temperature, in which case the fan runs at high or boost respectively.

 Auto high and auto boost functions cannot be accessed whilst 'FAN ONLY' is selected, (FAIT displayed, see 2.3).

#### 2.3 To change the Cool/Heat/Fan Only Mode:

- Illuminate the display (blue button). a.
- Press 举单纪 (Cool/Heat/Fan Only) the mode symbols will pulse. b.

Press the + or – ( $\blacktriangle$  or  $\nabla$ ) button to select the 4 Cool/Heat modes 攀/美/泰美/F用□ (see page 2), whilst pointing the handset towards the

unit, (unless the handset is wire connected). Each press of the + or - $(\blacktriangle/\nabla)$  button will increase/decrease the mode by 1 step and transmit the new setting to the unit.

#### NOTES:

- Transmission of a heat or cool/heat command to a cool only unit will be accepted but the heat function will be ignored - the unit will continue to operate in cooling only mode.
- Each press of the + ( $\blacktriangle$ ) button will cycle through the options in the order /
- Selecting FRI (fan only) will display FRI and cause auto high and auto boost functions to default to low speed. 3











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## **CLOCK/TIMER FUNCTIONS**

## IF THE CLOCK/TIMER FUNCTIONS ARE NOT REQUIRED, IGNORE SECTIONS 3 TO 7.

- Clock and timer functions are accessed by repeatedly pressing the BLUE clock button (O).
- The other buttons then assume functions shown in the blue stripe.

## 3 Clock Functions

#### 3.1 To set the correct day and time:

- a. Press the blue button (O) twice the display shows SEE.
- b. Press the DAY button the display shows  $\vec{L}' \square \vec{L}$  and the days of the week, with a pulsing arrow ( $\blacktriangle$ ) under M (Monday).
- c. Press the + or  $-(\blacktriangle \text{ or } \mathbf{\nabla})$  button until the arrow is under the correct day:
- d. Press the HOUR button the hours digits will pulse.

e. Press the + or  $-(\triangle \text{ or } \nabla)$  button until the correct hour is displayed: 24.00 hours is displayed as  $\square \square \square$ .

- f. Press the MINUTE button the minutes digits will pulse.
- g. Press the + or  $-(\blacktriangle \text{ or } \nabla)$  button until the correct minutes digits are displayed:

h. Transmit using the orange  $\widehat{\widehat{\tau}}$  button. A single beep means the signal has been accepted.

#### NOTES:

- Days, hours and minutes are programmable in any order and may be revisited in any order before transmission.
- Once set, the day or time should only need resetting when the clocks go back or forward; if in any doubt, reset.

## 4 To view or change the 7 day timer programme

#### 4.1 To view the programme:

a. Press the blue button (O) three times - the display shows  $P^{-O}$ .

b. Press the DAY button - the screen will display S M T W T F S with an

arrow ( $\blacktriangle$ ) under M (Monday), the 'on' symbol ( $\dot{I}$ ) and  $\Box B \Box \Box$ , (the preprogrammed Monday switch QN time).

c. Pressing the DAY button again will display the 'standby' symbol  $(\Phi)$ 

and 17:30, (the preprogrammed Monday switch OFF time).

d. Further pressing of the DAY button will step through first the ON and then the OFF time for each of the 7 days and finally back to Monday. The whole week's programme may be viewed, without modification, by this means.

#### NOTES:

• 08:00 and 17:30 are the preprogrammed times; any user changed times will be displayed instead, (see 4.2).

#### 4.2 To change the ON or OFF time of any day or days:

(the timed programme will not operate correctly if the clock in the unit has not been set, see 3.1)

a. Press the blue button (O) three times - the display shows  $P^{-0}$ .

b. Press the DAY button - the screen will display S M T W T F S with an arrow (▲) under M (Monday), the 'on' symbol (I) and the programmed Monday switch ON time.

c. Repeatedly press the DAY Button until the desired day is indicated by an arrow together with the desired 'on' (I) or 'standby'  $({\Bar{O}})$  symbol.

d. To change the Hour: Press the HOUR button - the hours digits will pulse. Press the + or  $-(\triangle \text{ or } \nabla)$  button until the desired hour is displayed. e. To change the Minutes: Press the MINUTE button - the minutes digits will pulse. Press the + or  $-(\triangle \text{ or } \nabla)$  button until the desired minutes are displayed.

until all required days have been re-programmed, then transmit using the

orange  $\widehat{\overline{z}}$  button. A single beep means the signal has been accepted.

Press the DAY button to continue to the next ON or OFF time, and repeat

• If an illogical selection is made (e.g. 'off' time earlier than 'on' time, or 'on'

time with no 'off' time, or 'off' time with no 'on' time), the programme will not

move on to another day, or transmit, until the error is removed. Err will be

will switch between 'on' and 'off' times until a logical time is entered.

displayed each time the DAY, or orange  $\widehat{\Xi}$  button is pressed, and the display



08,00



## 5 Switching the timer off

NOTES:

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## 5.1 To return a unit, currently running under a timed programme, to MANUAL ON/OFF control:

a. Press the blue (O) button four times - the display shows OFF.

b. Transmit using the orange  $\widehat{\widehat{\Rightarrow}}$  button. A single beep means the signal has been accepted.

c. The screen will display the basic functions. The clock <sup>(2)</sup>/<sub>(2)</sub> symbol will be removed to show that the unit has been instructed to run under manual ON/OFF control.

#### NOTES:

- If the  $\widehat{UFF}$  display is transmitted during a timed run period, the unit will continue to run until turned off by pressing the orange  $\widehat{\widehat{\gamma}}$  button, (whilst the basic screen is displayed).
- If the DFF display is transmitted during a timed off period, the unit will remain in 'standby' until turned on by pressing the orange <sup>2</sup> ⇒ button, (whilst the basic screen is displayed).
- Any setback functions programmed will also be switched off (see section 7).
- The programme **DFF** signal can be re-transmitted at any time.

## 6 Switching the timer on

#### 6.1 To run a unit under a timed programme:

(the timed programme will not operate correctly if the clock in the unit has not been set, see 3.1)

- a. Press the blue button (O) five times the display shows  $\dddot{D}$
- b. Transmit using the orange 🗧 button. This will transmit the programme in

the handset to the unit.. A single beep means the signal has been accepted.

c. The screen will display the basic functions and the clock O symbol to show that the unit has been instructed to run under timed ON/OFF control.

#### NOTES:

- If the  $\Omega \Omega$  display is transmitted during a timed run period, the unit will continue to run until turned off by the timer programme.
- If the III display is transmitted during a timed off period, the unit will remain in clock controlled 'standby' until turned on by the timer programme.
- Any setback functions programmed will also be restored, (see section 7).
- The programme  $\Box \Omega$  signal can be re-transmitted at any time



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OFF





SMTWTF

proq

prog

SEF

12:00

SMTWTF

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08'00

08:00